



UNITED STATES PATENT AND TRADEMARK OFFICE

clo

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,346	12/19/2001	Michael Bender	52051	9064
26474	7590	05/19/2004		
KEIL & WEINKAUF 1350 CONNECTICUT AVENUE, N.W. WASHINGTON, DC 20036			EXAMINER TRAN, BINH Q	
			ART UNIT 3748	PAPER NUMBER
			DATE MAILED: 05/19/2004	

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/021,346	Applicant(s) BENDER ET AL.	
	Examiner BINH Q. TRAN	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 4-8 is/are allowed.
- 6) ☒ Claim(s) 2, 9, 10 and 16 is/are rejected.
- 7) ☒ Claim(s) 3, 11-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment filed February 23, 2004.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 2, 9-10, and 16 are rejected under 35 U.S.C. 102 (b) as being anticipated by Houseman et al. (Houseman) (Patent Number 4,033,133).

Regarding claims 9-10, and 16, Houseman discloses converter for a catalytic conversion of fuel (See Figures 1 and 5), comprising a vaporization space (50) (See Figures 1 and 5) and a conversion space (48) (See Figures 1 and 5), the vaporization space being located within the conversion space (See Figures 1 and 5), the vaporization space having separate feeds for exhaust gas or intake air (36) and fuel (42) (See Figures 1 and 5), the conversion space having a catalyst for the catalytic conversion of fuel and the vaporization space and the conversion space being connected to one another so that heat transport from the conversion space into the

Art Unit: 3748

vaporization space is possible, wherein the catalyst is used in the form of a honeycomb (See Figures 1 and 5; col. 3, lines 1-67; col. 4, lines 1-29).

Regarding claim 2, Houseman further discloses that the fuel is dehydrogenated or partially oxidized (See Figures 1 and 5; col. 3, lines 1-67; col. 4, lines 1-29).

Claims 2, 9-10, and 16 are rejected under 35 U.S.C. 102 (e) as being anticipated by Taguchi et al. (Taguchi) (Patent Number 6,733,552).

Regarding claims 9-10, and 16, Taguchi discloses converter for a catalytic conversion of fuel (See Figures 3-6), comprising a vaporization space (24) (e.g. See Figure 3) and a conversion space (24) (e.g. See Figure 3), the vaporization space being located within the conversion space (e.g. See Figure 3), the vaporization space having separate feeds for exhaust gas or intake air (21) and fuel (22) (e.g. See Figure 3), the conversion space having a catalyst for the catalytic conversion of fuel and the vaporization space and the conversion space being connected to one another so that heat transport from the conversion space into the vaporization space is possible, wherein the catalyst is used in the form of a honeycomb (e.g. See Figure 3; col. 10, lines 19-67; col. 11, lines 1-67; col. 12, lines 1-65).

Regarding claim 2, Taguchi further discloses that the fuel is dehydrogenated or partially oxidized (e.g. See Figure 3; col. 10, lines 19-67; col. 11, lines 1-67; col. 12, lines 1-65).

Allowable Subject Matter

Claims 1, and 4-8 are allowed.

Claims 3, and 11-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of three patents:

Lesieur (Patent Number 6620389), Tachihara (Patent Number 6617067), and Houseman et al. (Patent Number 3982910) all disclose a fuel conversion system for use with an internal combustion engine.

Response to Arguments

Applicant's arguments filed February 23, 2004 have been fully considered but they are not completely persuasive. ***Claims 1-16 are pending.***

Applicant's arguments, see Pages 2-5, filed February 23, 2004, with respect to Claims 9-10, and 16 have been fully considered and are persuasive. Accordingly, the Office Action mailed on November 19, 2003 (Paper No. 11) has been withdrawn.

Art Unit: 3748

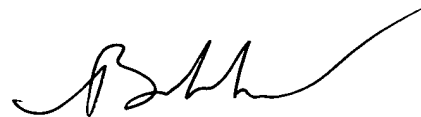
Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection as discussed above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (703) 305-0245. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (703) 308-2623. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.



BT
May 14, 2004

Binh Tran
Patent Examiner
Art Unit 3748